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ABSTRACT

The present study describes the initial use of a measure for assessing children's imaginative predispositions and reports findings of significant relationships between oral reports of imaginativeness and selected individual and family variables. Subjects were 50 preschool children 4 to 5 years of age. Variables investigated were number of parents and siblings in the family and several characteristics of the child: perceived brightness, mental and chronological age, sex, and general intellectual ability. The Peabody Picture Vocabulary Test (Form B) was used to obtain a measure of receptive language IQ. The Imaginative Predisposition Interview Schedule was employed to evaluate predispositions toward aspects of "ludic play." Examiners asked a series of 28 questions and followed each question with two prompts in an effort to assess whether the child emphasized "reality" or "make-believe," to elicit detail, and to obtain a minimum of 100 running words of oral discourse response per question. Children's responses to each question were scored independently by raters on a one to six Likert scale. Perceived intellectual capacity was rated by examiners after testing. Tests of interrater agreement and reliability, as well as correlational and factor analyses, were conducted. Among the results, it was found that preschoolers in single-parent families displayed greater imaginativeness than did those in dual-parent families. Factor analysis yielded 10 factors similar to dimensions of children's actions observed during free play. (RH)

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ASSESSING YOUNG CHILDREN FOR IMAGINATIVENESS THROUGH ORAL REPORTING: PRELIMINARY RESULTS[1]

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Assessing Young Children for Imaginativeness Through Oral Reporting: Preliminary Results

Introduction

Recently there has been increasing interest in assessing the young child's imaginativeness to determine differences that may occur within his normal development and functioning. Imaginativeness or imaginative predisposition is defined as the magnitude or degree or extent to which children transcend the constraints of reality in his or her play -- for example, "by using one object to represent another one, by adding vocalizations suggesting he or she was symbolizing a role or object, or by introducing a story line (Tower, Singer, Singer & Biggs, 1979, p. 271)."

However, even with this resurgence of interest in imaginativeness of young children, there is relatively little known about its measurement in preschoolers and relationships between imaginativeness and selected family and cultural variables. Accordingly, this research investigation attempts to develop and test an assessment instrument for measuring imaginativeness using oral reports of young children and discusses how imaginativeness may relate with family and cultural variables of: (a) number of parents in the family (i.e., dual and single families), (b) number of siblings in the family (i.e., family density), (c) perceived brightness of the child, (d) mental and (e) chronological ages of the youngster in months and years, (f) sex as well as the (g) child's general intellectual ability using the Peabody Picture Vocabulary Test (Dunn, 1960).

This research paper is part of an on-going investigation of assessing imaginative predispositions using oral report and observational measures with preschoolers. The present study reports preliminary results of significant relationships between oral reports of imaginativeness and selected family and cultural variables in addition to selected child variables.

Theoretical Perspectives

Piaget's (1962) views of imaginative play is widely accepted as the most definitive and comprehensive explanation of imaginative play growth and functioning in young children, infancy through early childhood. Piaget views imaginative play from several perspectives. First, Piaget (1962) sees imaginative play as a cognitive entity and a necessary condition for the development of more advanced forms of logical thought. In this light, Piaget notes that imaginative play is an exercise:

> . . . . of action schemes and therefore part of the cognitive component from conception. At the same time play manifests the pecularity of a primacy of assimilation over accommodation which permits it to transform reality in its own manner without submitting that transformation to the criterion of objective fact (p. 338).

As a structuralist, Piaget ties together cognitive operations fundamental to imaginative play, the child's motivations for playing and the stage of his intellectual development (i.e., sensorimotor, preoperational, concrete operations and formal operations). Imaginative play, then becomes a function of how the child thinks or is capable of thinking largely from 12-18 months to seven years of age.

From a cognitive perspective, the most definitive element of imaginativeness is its "as if" attribute. Described as "representational set" (Sutton-Smith, 1968) the "as if" element announces the beginning and ending of imaginative activities in which young children represent actual or imagined experiences, events, and situations as observed through and inferred from their verbal actions and/or motoric actions and use of objects. In turn, these experiences, events or situations are reproduced in a differing variety and under varying conditions from those in which the initial ones have occurred or are likely to occur.

The "as if" attribute of imaginative play inferred from the preoperational child's expressions and/or actions shows that symbolic functioning and decontextualization are occurring. The use of symbols and what they show or represent, require, at minimum, underlying cognitive or mental constructions which enable children to encode meanings and communicate them in personal and meaningful ways. In using "as if" actions and/or expressions, the preschooler is mentally capable of separating meanings and real events or situations from the symbols which represent them through the perspective of egocentric assimilation (Piaget, 1962; Werner & Kaplan, 1963). The youngster also in imaginative play can use symbols (e.g., gestures, actions, pictures or words and their combinations) properly outside of their real-world context. This shows that the preschooler has decontextualized the meaning of the symbols. For example, at an elementary level of imaginative play, the child shows that he is washing his face by making "washing movements or actions" (and/or stating, "Look, I am washing!") -- but no wash cloth, water or soap are present. In this example it can be assumed that these experiences and activities are imaginative play because no objects are present. In addition, the child has cognitively separated understanding and the real world event of "washing" from its motoric movements and/or verbal expressions. Here, the child is representing and evoking reality and using symbolic functioning in the form of imaginative play.

If the child uses a wash cloth (without soap and water) and shows by circular-hand-movements or other gestures and/or verbal statements that he is washing his face, he appears to know what the wash cloth is used for and how it is used. In this instance, the child decontextualizes the meaning of the wash cloth and uses it outside of its regular context. Symbolic functioning and decontextualization are both primary actions in demonstrating the "as if" capacity as the primary attribute of imaginative play.

In addition to symbolic functioning and decontextualization, Piaget at another level explains imaginative play through cognitive development and advancing forms of logical thought. Piaget pictures the onset and growth of imaginative play in terms of developmental levels which reflect and coincide with specific benchmarks of cognitive competence and development. This cognitive-based developmental sequence of imaginative play represents increasingly more advanced and complex forms of decontextualization. According to Fein and Apfel (1975, p. 4), this ". . . progressive decontextualization and elaboration. . comes from the phasing in of several discrete strands of symbolic mastery" which reflect the development of symbolic functioning.

In addition to Piaget, other major developmental theorists such as Vygotsky (1967) and Werner (1948) ascribe cognitive significance to and developmental sequence in imaginative play and trace its growth from concrete to more abstract stages -- i.e., from treating objects and persons realistically to using them "as if" they are imaginative others. Viewed as an indispensible step in cognitive development, imaginative play frees the youngster from external stimulus bounds and has the potential to advance his thought toward more and more operational and abstract levels.

Imaginativeness and Family and Cultural Variables

There has been some attempt to explore imaginativeness and its relationships with selected social aspects and socialization variables with more imaginative children being able to transcend the constraints of reality, remember details of stories with accuracy (Marshall & Hahn, 1967; Singer, 1973; Smilansky, 1968), exhibit high levels of social skills (Singer & Singer, 1976 a), show greater concentration (Pulaski, 1973; Singer & Singer, 1976 b) demonstrate positive affect (i.e., extent to which the child enjoys play activities) (Tower, Singer, Singer & Biggs, 1979), display more imaginary play companions (Calderia, Singer & Singer, 1978) and resist temptation or tolerate delays (D. Singer & J. Singer, 1980; J. Singer & D. Singer, 1981).

A majority of these previous research studies have examined social-adaptive features of imaginativeness (e.g., D. Singer & J. Singer, 1980; J. Singer & D. Singer, 1976, 1981; Singer & Singer 1976 a, 1976 b; Pulaski, 1973) and explored enhancement potential of imaginative play on selected social variables in training studies (e.g., D. Singer & J. Singer, 1976; Tower, Singer, Singer & Biggs, 1979; Smilansky, 1968) using intervention training methodology, observational techniques and oral reports of children and adults or a combination of them. The oral report form is used largely by Singer and his associates as another type of measurement of imaginative predispositions in young children. The use of oral reports with young children is based on the assumptions that imaginativeness (Singer, 1973): (a) is central to and linked with the development of cognitive and social capacities of young children, (b) has a verbal symbolic mode crucial to covert mediational responses and therefore is a part of the child's behavioral repertory, and (c) may be assessed through a verbal dimension especially with children in later preschool years who exhibit increasing development toward anticipatory imagery (cf. Piaget & Inhelder, 1971) or more verbal modes of thinking (cf. Bruner, 1966).

Given the importance of imaginativeness and its relation with general cognitive capacities and social growth abilities in young children, it is likely that family and cultural variables relate with and influence such behavior in young children and in varying degrees and ways. Family and cultural influences are not only transmitted to children at very early ages, but they are also reflected in their imaginativeness (Singer, 1973; Tower, 1980). For example, available evidence shows that children who display more spontaneous imaginative play have a history of secure "mother-child" attachment (Matas, Arend & Stroufe, 1978). Also, children evidencing more imaginative play show a greater likelihood of having a parent in the family unit who tells them stories and plays

pretend games with them (Breckenridge & Vincent ,1965; Singer, 1961; Shmukler, 1977; Svendsen, 1934). In addition, findings from studies conducted by Svendsen (1934) and Breckenridge and Vincent (1965) suggest that the number of siblings in the family (i.e., family density) may relate with the quality and quantity of imaginative play companions children have. Previous research results of Manosevitz, Prentice and Wilson (1973) and Masih (1978) show a significant correlation between having imaginative play companions and birth order of the target child as well as those of Schaeffer (1969) and Singer (1966, 1973) which provide evidence for the family unit (i.e., dual versus single parent families) influencing whether youngsters have imaginary play companions. Finally, Lieberman's (1965) findings suggest that the youngster's "brightness" is correlated with associative fluency (i.e., a language variable of playful divergent thinking).

The development of a measure to assess imaginative predispositions and examine relationships between selected family and cultural variables is the scope and content of this investigation. The following sections of this paper describe the methods, procedures and preliminary results of this study.

Methods

Participants

Three were 50 preschoolers enrolled in the study. Of the 50 children, 23 were girls and 27 were boys. There were 24 four year olds and 26 five year olds. The mean age was four years and nine months; the mean mental age in months was 73.4. The children were primarily from middle economic class backgrounds with all of their families' heads-of-households employed in white collar occupations from fields such as university and public school teaching, sales, service, medical and secretarial (Warner, Meeker & Eels, 1960).

Of the 50 youngsters: (1) none were only-children, (2) 25 had two siblings, (3) 18 had three siblings, (4) six had four siblings, and (5) one had five siblings in the family. For the variable of birth order: (1) 35 children were first born, (2) 10 were second born, and (3) five were third born in their respective family units. For parentage, (1) eight were from single, and (2) 42 were from dual parent families. On the rating for perceived brightness (one point-low to six-high): (1) three scored two, (2) 28 received three, and (3) 19 scored four points. The mean Peabody Picture Vocabulary Test-I.Q. score was 111.60 and the mean imaginativeness score from the Imaginative Predisposition Interview Scale was 36.40 points.

The children were pulled from seven preschool centers located in State College, Pennsylvania after parental consent forms for participation in the study were completed and returned. The participating preschool centers were: Grace Lutheran Nursery and Kindergarten, Busy Bee Daycare, Childspace, Garden of Children, Punkin Patch, and Small World. In general, the preschool centers' curricula, class scheduling and teaching procedures were similar across schools and characteristic of an academically oriented setting and university-based city.

Variables

As a group, the variables include background demographic characteristics and imaginative predisposition assessments. The key demographic characteristics comprising variables in this investigation are number of siblings in the family unit (Svendsen, 1934; Breckenridge & Vincent, 1965), birth order of the child (Manosevitz, Prentice & Wilson, 1973; Masih, 1978), family unit (i.e., dual versus single family) (Schaeffer, 1969, Singer, 1973, 1966), a perceived level of brightness score (i.e., perceived intellectual capacity of the child scores on a Likert score of one-"low" to six-"high" by the examiner upon completion of the testing) (Lieberman, 1965) and receptive language intelligence quotient (I.Q.) using the Peabody Picture Vocabulary Test (P.P.V.T.)-Form B (Dunn, 1960). Except for the brightness rating and P.P.V.T.-I.Q. score, all information for the demographic characteristics were obtained from the records and/or teachers in the preschool centers.

The instrument, Imaginative Predisposition Interview Schedule (I.P.I.S.), comprises the youngster's predisposition toward imaginativeness (Singer, 1973). Each item evaluates the child's imaginative play predisposition toward differng yet particular ludic play aspects. These aspects include imaginative play dispositions toward varying objects, actions, situations and activities (Singer, 1973; Smilansky, 1968). Four examples (note 1) of items from the I.P.I.S. follow:

1. Do you play games with your friends? What games do you play with your friends?
2. Do you have a make-believe friend? What does your make-believe friend do?
3. Do you play with toys? What toys do you play with?
4. Do you watch television? What do you see or watch on television?

The child is read each of the items. The order of the items for each child is randomized and counterbalanced to reduce order effects of the test administration. After reading each of the items, the child is asked to respond and his verbatim responses to each of the items are tape recorded. The question is repeated if the youngster does not appear to understand. If the child does not respond or answers tersely (e.g., "blocks" to example question item one), two prompts are given at the end of a 30 second interval after the initial stimulus item is read. The first prompt is "Tell me about. . .[e.g., the games you play with your friends (see sample item question one); the things your make-believe friend does (see sample item question two), etc.]" The second prompt elicited one minute following prompt one is "Tell me MORE about. . .[e.g., the games you play with your friends (see sample item question one), etc.] If the child does not respond one minute after the second prompt, the examiner moves to another question. The purpose of repeating questions and using prompts is to:

(a) understand whether the child's emphasis is on "reality" or "make-believe" elements; (b) ask for detail and elaboration of one or both components; and, (c) obtain a minimum of 100 running words of oral discourse response per question.

After completion of the I.P.I.S., the child's responses to each of the questions are scored independently by raters on a one to six Likert scale. From one to six, each of the Likert scoring categories show increasing emphases and greater quantity and quality of make-believe elements. For example, the content of the child's response to a question is awarded one point for:

> Any response or set of responses that are not logical, appropriate or fantasy oriented. Any responses indicating that the child does not comprehend and understand. Examples include: 'no,' 'cause,' 'yes,' 'mommy told me' and others where the child does not anwer orally and/or physically (Yawkey, 1983).

To be awarded six points, the content of the children's responses to the questions shows the following characteristics:

> Any response or set of responses arising from and based on fantasy and containing make-believe situations, actions, activities, situations, objects and people from a pure make-believe base. Any showing make-believe taking precedence over the original make-believe stimulus. Organization, cohesion and integration of make-believe elements are also observed in the oral narrative. Examples include: make-believe object (e.g., Barbie doll) talks, becomes a fairy princess, flies through the air and catches monsters, etc.; make-believe companion (e.g., Noisy) climbs up-a-top the house (or castle), flies around in the sky and disappears (Yawkey, 1983).

Administering all 28 items of the I.P.I.S. requires approximately 40 minutes. The range of points per child is 28 to 168 points.

Procedures

Data on demographic characteristics and imaginative play predispositions using the I.P.I.S. are gathered at the child's preschool and in a room near to the youngster's classroom. A trained examiner established rapport with the youngster before the testing began. The examiner escorted the youngster to the classroom and talked about an interest or experience that had occurred in the preschool that day or the previous day (e.g., trip to the zoo, new gerbel in the classroom). The child's assessments using the P.P.V.T. and I.P.I.S. are completed on the same day with 10 minutes of "free play" between assessments. The background demographic characteristics on each child are also gathered the same day and usually at the end of the testing session. The testing session is divided into two counterbalanced parts; the administration order of the P.P.V.T. and I.P.I.S. tests is randomized across children. One half the children per age group are administered the P.P.V.T. first; the other half received the I.P.I.S. first. The amount of testing time required for the P.P.V.T. is 20 minutes; the I.P.I.S. requires 40 minutes. Preliminary analyses indicate that test order effects on I.P.I.S. performance were not statistically significant.

The five examiners were trained in a workshop setting for two and one-half hours prior to actual gathering data with the children enrolled in the study. They were paid for their work with the study at the rate of current minimum wage. Part one of the training session focused on explanation of the study, instruments and directions for their administration and lasted approximately 40 minutes. Part two, lasting approximately 80 minutes, focused on providing testing experience with four and five year old children not enrolled in the study. The testing procedures, problems and concerns encountered by the examiners are discussed and

clarified in part three or the final session of the training workshop. The examiners had to equal or surpass a .70 criterion for reliability on scoring the oral discourse using the six point Likert score and obtain a minimum of 100 words of oral discourse per item to show minimum proficiency in testing procedures. (Medley & Mitzel, 1963). This final session lasted approximately 30 minutes.

Experimental Design

When testing of all 50 children were completed, data processing and analyses began. Analyses so far has been largely descriptive and correlational in nature. Further nonparametric and parametric analyses are currently being initiated with data from the present study. And, subsequent revision of the I.P.I.S. and additional data gathering on other preschool populations are set for Fall 1983. Findings reported here are preliminary and are derived from the data and results available at the time of this writing.

Results

The results are organized into three sections or parts: (a) inter-rater agreement and reliability coefficients, (b) Pearson Product Moment correlations, and (c) factor analysis using varimax rotation. The results of these analyses are explained in the following four sections.

Inter-rater Agreement and Reliability Coefficients

Both inter-rater agreement and reliability coefficients were calculated for the I.P.I.S. For inter-rater agreement, two of the five examiner independently rated all of the responses of the 50 children across all 28 items. They were renumerated at minimum wage for their scoring. For ease of scoring, the children's taped responses per question were transcribed and typed in paragraph form. The

raters used the one to six point Likert rating categories for scoring the child's quality of imaginativeness. Examples of the category and point systems used in rating the child's oral discourse responses were already given and explained in the preceding paragraphs. The rating category system and scoring were awarded on the basis of the expressed quality of imaginative discourse used by the youngster in responding to each of the 28 items. The raters judged the magnitude or degree of imaginativeness: (a) reading and rating the oral discourse content per question and (b) assigning one (i.e., low) to six (i.e., high) points to the imaginative quality.

Inter-rater agreement coefficients are calculated per item and for total score by dividing the number of agreements divided by number of agreements plus number of disagreements multiplied by 100. (Medley & Mitzel, 1963). Across the items, the mean inter-rater agreement for scoring on degree of imaginative play elements using the six point Likert category system ranged from 71.4 to 96.4. Across all items the overall mean inter-rater agreement was .76.

For purposes of test reliability, the Alpha coefficient of .81 was obtained for the I.P.I.S. across age and gender variables. According to Brown (1968), a reliability of .80 or higher is quite satisfactory for tests of cognitive abilities and considerably more latitude is granted for assessments of attitude and values. The mean and range statistics were 36.44 and 52, respectively with a standard deviation of 11.45, standard error of measurement of 5 and standard error of test mean of 1.64.

Pearson Product Moment Correlations

All correlations reported are statistically significant at the $p < .05$ level. First, results indicate a significant Pearson Product Moment Correlation between total score on the I.P.I.S. with number of parents in the family (i.e., single versus dual families) ($r = -.32$) but not between total I.P.I.S. score and:

(1) number of siblings in the family, (2) sibling birth order, (3) perceived brightness level, (4) P.P.V.T.-I.W. score, (5) mental age of the child, (6) his chronological age in months, (7) age or (8) sex. Given that the total I.P.I.S. score was significantly correlated with the number of parents in the family unit, the results show that children in single parent families tend to display higher imaginative scores on the I.P.I.S. than those children in dual parent families.

In addition, there are a number of significant associations between the child's performance on individual items of the I.P.I.S. and several key demographic characteristics of: (a) years of age in months, (b) number of siblings in the family, (c) birth order, (d) number of parents in the family unit, (e) level of perceived brightness scored by the examiner, (f) mental age and (g) chronological age of the youngster. The results of these significant correlations follow.

First, the age of the child is significantly associated with beliefs that their fantasy dreams will come true ($\underline{r} = {}^{-}.32$). Younger children tend to have greater beliefs that their fantasy dreams will come true than older children. Second, the greater number of siblings in the family is significantly correlated with toys classified as highly imaginative ($\underline{r} = .30$) and jokes and humorous stories having higher fantasy content ($\underline{r} = .28$). Third, the number of parents in the family is significantly correlated with: (1) imaginative games children play themselves when alone ($\underline{r} = {}^{-}.28$), (2) imaginative and fantasy make-believe friends ($\underline{r} = {}^{-}.34$), (3) fantasy games children play out-of-doors ($\underline{r} = {}^{-}.32$) and (4) fantasy talk with imaginary friends ($\underline{r} = {}^{-}.35$). Evidently, children in single parent families tend to have more imaginative fantasy companions, use more imaginary talk with their fantasy friends, play more imaginative games themselves when alone and engage in more imaginative games out-of-doors than those youngsters in dual parent families. Fourth, the perceived level of brightness is significantly

associated with fantasy songs children sing (r = ⁻.32) indicating that children perceived as less bright tend to use songs having greater fantasy content than those who are scored as more bright by the examiner. Fifth, the child's mental age is significantly related with the fantasy dreams (r = ⁻.31) indicating that youngsters with higher mental ages tend to have dreams with higher imaginative content than those with lower mental ages. Sixth, children's chronological age in months is significantly correlated with the child's fantasy games out-of-doors (r = ⁻.28). Evidently, children younger in chronological age play greater kinds and types of fantasy games out-of-doors than older ones.

Factor Analysis

Factor analysis with varimax rotated factors is used to determine the number of factors comprising the I.P.I.S. and the stimulus test items that cluster within each factor. For factor loadings, .4 (and above) is used as criterion (Hale, 1983). The results showed that the 28 item I.F.I.S. scale contains 10 factors and each are described in the following section.

First, stimulus items 2, 6, 7, 8, 10, 13 and 19 having an eigenvalue of 4.85 clustered as factor one. It is labeled imaginativeness with objects (e.g., make-believe with self, stuffed animals, imaginative play companion). Second, having an eigenvalue of 2.72, items 9, 15, 20 and 22 clustered as factor two. It is identified as imaginative movement and action (e.g., physical movement and mental actions in inside and outside environments). Third, stimulus items 11, 20, 21, and 25 having an eigenvalue of 2.01 clustered as factor three. It categorizes personal manifestations and characteristics of fantasy (e.g., dreaming, being alone, fantasy between self and friends).

Fourth, stimulus items 19 and 28 cluster as factor four with an eigenvalue of 1.59. This factor is labeled verbal imagination (e.g., talking to yourself and teasing others). Fifth, stimulus items 26 and 27 comprise factor five and

have an eigenvalue of 1.42. Factor five is entitled school imaginativeness (e.g., imaginative products completed in school settings). Sixth, stimulus items 14 and 18 with an eigenvalue of 1.25 clustered as factor six and is identified as storytelling and reading (e.g., telling and reading pretend stories). Seventh, stimulus items 4 and 12 cluster as factor seven with an eigenvalue of 1.21. The items describe a general factor called fantasy toys (e.g., animals).

Eighth, stimulus items 5, 23 and 24 having an eigenvalue of 1.04 clustered together as factor eight. It is labeled imaginative play forms (e.g., drawing, joking, pretending to be someone or something). Ninth, stimulus items 1 and 7 cluster as factor nine with an eigenvalue of .81. It is entitled family imaginativeness (e.g., parent telling make-believe stories and dreams). Tenth, stimulus items 17 and 21 with an eigenvalue of .72 clustered as factor 10. It is identified as fantasy person (e.g., pretending to be someone other than yourself).

Discussion and Conclusions

The results as pointed out are based on a portion of the entire data set that also includes observational measures of children's spontaneous and imaginative play behaviors. The results reported in this paper are preliminary ones and focus on relationships between imaginativeness as assessed by oral reports of preschoolers and selected family and cultural variables.

Imaginativeness and number of parents in the family (i.e., single versus dual) are significantly correlated. Preschoolers in single parent families display higher imaginativeness than those in dual parent families. These findings are consistent with the literature on the greater use of imaginative play companions with children in single rather than dual parent families

(Manosevitz, Prentice & Wilson, 1973; Schaeffer, 1969) and with the literature on children's imaginative predispositions in single parent households (Singer, 1973, 1966).

Singer's (1973) hypothesis that single parent families foster imitation, identification and closeness while at the same time provide opportunities for privacy and practice of pretend should lead to greater imaginative predispositions on the part of these children. Children in single parent families may have greater amounts of time by themselves and fill up this "empty space" with imaginative thought and pretend activities. This represents an adaptive use of imaginative competencies. Manosevitz, Prentice and Wilson (1973) and Breckenridge and Vincent (1965) note that imaginativeness may provide a means of escape from loneliness by reproducing reality through imaginative play.

Likewise, the greater quality and quantity of imaginativeness shown by children from single parent families on various items from the Imaginative Predisposition Interview Schedule may also reflect Singer's hypothesis. In single parent families, children report: (1) playing more imaginative games when alone, (2) engaging in more imaginative outdoor games, (3) showing greater imaginative talk with their fantasy friends and (4) having more imaginary play companions than youngsters in dual parent families.

It was assumed that other family and cultural variables such as the number of siblings in the family (Svendsen, 1934) and birth order of the child Masih (1978), for example, show that high degrees of imaginativeness are associated with only-children in the family and the present study contained no only-children. In addition, the lack of supporting evidence may be due to inadequate measurement reflective of items on the Imaginative Predisposition Interview Schedule. The conceptual relationships between imaginative predispositions and selected family variables such as family density and birth order need further research examination. Finally, the facts that younger rather than older children tend to have greater beliefs that their fantasy dreams will come true and play more

fantasy outdoor games are consistent with Piaget's (1962) and Singer's (1973) interpretation of imaginativeness as a cognitive and developmental entity.

The factor analysis yielded ten factors which emerged from the protocols of the Imaginative Predisposition Interview Schedule. These factors fall into fairly identifiable and recognizable patterns. Factor one is characterized by extensive use of imaginativeness with objects such as self, stuffed animals and imaginary play companions. Factor two emphasizes imaginative movements and physical actions. Factors three and four reflect personality characteristics and verbal or oral language forms of imaginativeness, respectively.

Factor five presents still another dimension called imaginativeness in school settings. It is characterized by imaginative products completed at school and includes board games, puzzles, and arts and crafts. Factor six reflects a literary imaginativeness centering on storytelling narratives and reading fantasy books and pretend stories. Factor seven reflects a dimension of imaginative toys and their uses and factor eight represents imaginative play forms comprising jokes, humorful stories and fantasy drawings.

Factor nine represents the dimension of family imaginativeness and is characterized by parents telling stories and pretend narratives to their children. Factor ten is a dimension of imaginativeness that is characterized by role-playing of adventurous characters, television heroes and "significant others."

In effect, these results indicate that for the sample of 50 children, it is likely that the oral reports of imaginativeness fall along one or more of these ten dimensions. These dimensions derived from oral reports of preschool children closely correspond to those of Singer and Singer (1981) based on youngsters, observed behavioral actions during free play settings.

Additional research needs to examine relationships between cultural and environmental press variables such as independence and social economic class with imaginativeness. Other related areas of investigation include relationships between parent beliefs about imaginativeness and their children's imaginative predispositions.

Notes

Note 1.

The entire 28 item instrument, Imaginative Predisposition Interview Schedule can be obtained by writing: Dr. Thomas D. Yawkey, Early Childhood Faculty, The Pennsylvania State University, Division of Curriculum and Instruction, 159 Chambers Building, University Park, Pennsylvania 16802.

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